

REMARKS

It is proposed that FIGS. 1 and 2 should be amended in the manner indicated in the accompanying copy thereof. Since this paper is being transmitted by fax, it is not possible to indicate the proposed amendments in red. The amendments involve adding the legend PRIOR ART to FIG. 1 and deleting the reference numeral "12" from FIG. 2. If the examiner approves of these amendments, they will be incorporated in formal drawings that will be filed when the application has been allowed.

Claim 54 has been objected to and claims 44-49 and 51-54 have been rejected under 35 USC 112, first paragraph. It is proposed that the claims should be amended as indicated above and it is believed that these amendments will remove the objection and rejection.

The amendments correct obvious errors in the claims and render the claims consistent with the disclosure of the invention in the specification and drawings. As such, the amendments are supported in particular by FIG. 2 of the drawings.

All claims other than claims 36 and 51 have been rejected over the prior art. It is proposed that the independent claims 27 and 42 should be amended in the manner indicated above. These amendments serve to emphasize that the target location is spaced from the window. The amendments are necessary in order to distinguish the invention clearly over the disclosure of the references that form the basis for the rejections over the prior art, which references were not previously of record.

The amendments for claims 44-49 and 51-54 are formal in nature and are presented in direct response to the examiner's comments and suggestions regarding these claims.

The present invention is concerned with apparatus for performing scattered radiation measurements, for example in order to determine presence of impurities in a fluid. In accordance with the invention as defined in claim 27, apparatus for performing scattered radiation measurements comprises an emitting device (designated 1, 8 in FIG. 2), a receiving device

(designated 2, 9) and a window having a first side presented towards the emitting device and receiving device and a second side that bounds a volume of fluid. Radiation emitted from the emitting device arrives at a target location spaced from the second side of the window along a first path and the receiving device receives radiation that leaves the target location along a second path, which is at an angle of about 90° to the first path. Consequently, the receiving device does not receive radiation directly from the emitting device but receives only scattered radiation. In accordance with claim 27, the emitting device (1, 8) comprises a radiation source (1) and a deflection element (8) that is positioned to receive radiation from the radiation source and to deflect such radiation towards the window.

All the references applied to the claims in the Office Action mailed July 7, 2003 are concerned with detecting moisture on a surface, particularly rain water on the outer surface of an automobile windshield. Zanardelli, for example, discloses a windshield moisture detector in which light that is introduced into the windshield from the rear surface thereof is reflected from the front surface in the event that the front surface is dry but is partially transmitted through the front surface in the event that the front surface is wet. Thus, to the extent that the cited references disclose that light that passes from an emitting device to a target location and passes from the target location to a receiving device, the references disclose that the target location is at the surface of the windshield and do not disclose or suggest that the target location be spaced from the window, as required by claim 27.

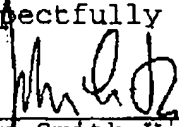
In Zanardelli, only reflected light is received by the light receiver 11, and the reflected light provides no information regarding impurities that might be present in the water on the front surface of the windshield. Since claim 27 requires that the target location be spaced from the window, the receiving device of claim 27 receives only scattered light. If, for example, the receiving device receives no light, this will

indicate that there are no scattering particles at the target location, whereas if the receiving device receives light, the intensity of the received light will depend on the density of scattering particles at the target location.

In view of the foregoing, it is submitted that the invention as defined in claim 27 is not disclosed or suggested by the cited references, whether taken singly or in combination. Therefore, claim 27 is patentable and it follows that the dependent claims 28-41 also are patentable.

Claim 42 distinguishes over the cited references for similar reasons to those presented in support of claim 27. Therefore, claim 42 is patentable and it follows that the dependent claims 43-56 also are patentable.

Respectfully submitted,

  
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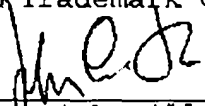
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